Sandbar Lake Provincial Park Background Information

Ontario

Ministry of Natural Resources

Hon. Vincent G. Kerrio
Minister

Mary Mogford
Deputy Minister

Additional copies of this publication are available only from:

Ministry of Natural Resources
Ignace District Office
P.O. Box 448
Hwy .599
Ignace, Ontario
P0T 1T0

© 1987, Queen's Printer for Ontario

Printed in Ontario, Canada

TABLE OF CONTENTS

		Page
1.0	INTRODUCTION	1
2.0	REGIONAL CONTEXT	2
3.0	LAND TENURE	4
4.0	DEVELOPMENT	6
5.0	RESOURCES	8
	5.1 CLIMATE	8
	5.2 EARTH SCIENCE FEATURES	8
	5.2.1 GEOLOGY	8
	5.2.2 GEOMORPHOLOGY	8
	5.2.3 SOILS	10
	5.3 LIFE SCIENCE FEATURES	11
	5.3.1 VEGETATION	11
	5.3.2 WILDLIFE	13
	5.4 AQUATIC RESOURCES	14
	5.5 CULTURAL RESOURCES	16
6.0	MARKET ANALYSIS	17
7.0	PHYSICAL CONSTRAINTS	18
8.0	CONTENTIOUS ISSUES	20
	APPENDIX - LATIN EQUIVALENTS FOR SPECIES LISTED	21
	REFERENCES	22

LIST OF FIGURES

1.	REGIONAL CONTEXT	3
2.	LAND TENURE	5
3.	DEVELOPMENT	7
4.	GEOMORPHOLOGY	9
5.	VEGETATION	12
6.	AQUATIC RESOURCES	15
7.	PHYSICAL CONSTRAINTS	19

1.0 INTRODUCTION

Sandbar Lake Provincial Park was established on February 3, 1970, by Ontario Regulation 165/70 and the metes and bounds legal description was later described in the Revised Ontario Regulation 695/70. The park was originally established at 3,157 hectares in area.

In 1974 an expansion of the park was proposed in order to include the adjacent area to the east of Highway #599. The expansion of the park to a total area of 5,127 hectares was proposed in order to provide better quality recreational and interpretive opportunities. The park expansion proposal was originally recommended in the approved Ignace District Land Use Guidelines (1983) and is presently in the process of being brought into regulation under the Provincial Parks Act.

The District Land Use Guidelines (1983) also recommended a change in the park classification from a Recreation Park to a Natural Environment Park. This change in classification was proposed in order to combine recreational opportunities with more natural and historic features, thereby providing a higher quality, more varied park experience.

The management planning process for the park commenced in December 1986 and was initiated in order to:

1. identify the goals and objectives of the park.

2. define the park's role and significance with respect to the expansion and classification change.

3. establish policy guidelines for the long term protection, development and management of the park.

4. resolve any contentious issues.

The background data contained in this document provides the necessary information required for sound decision-making in the preparation of the Sandbar Lake Provincial Park Management Plan.

2.0 REGIONAL CONTEXT

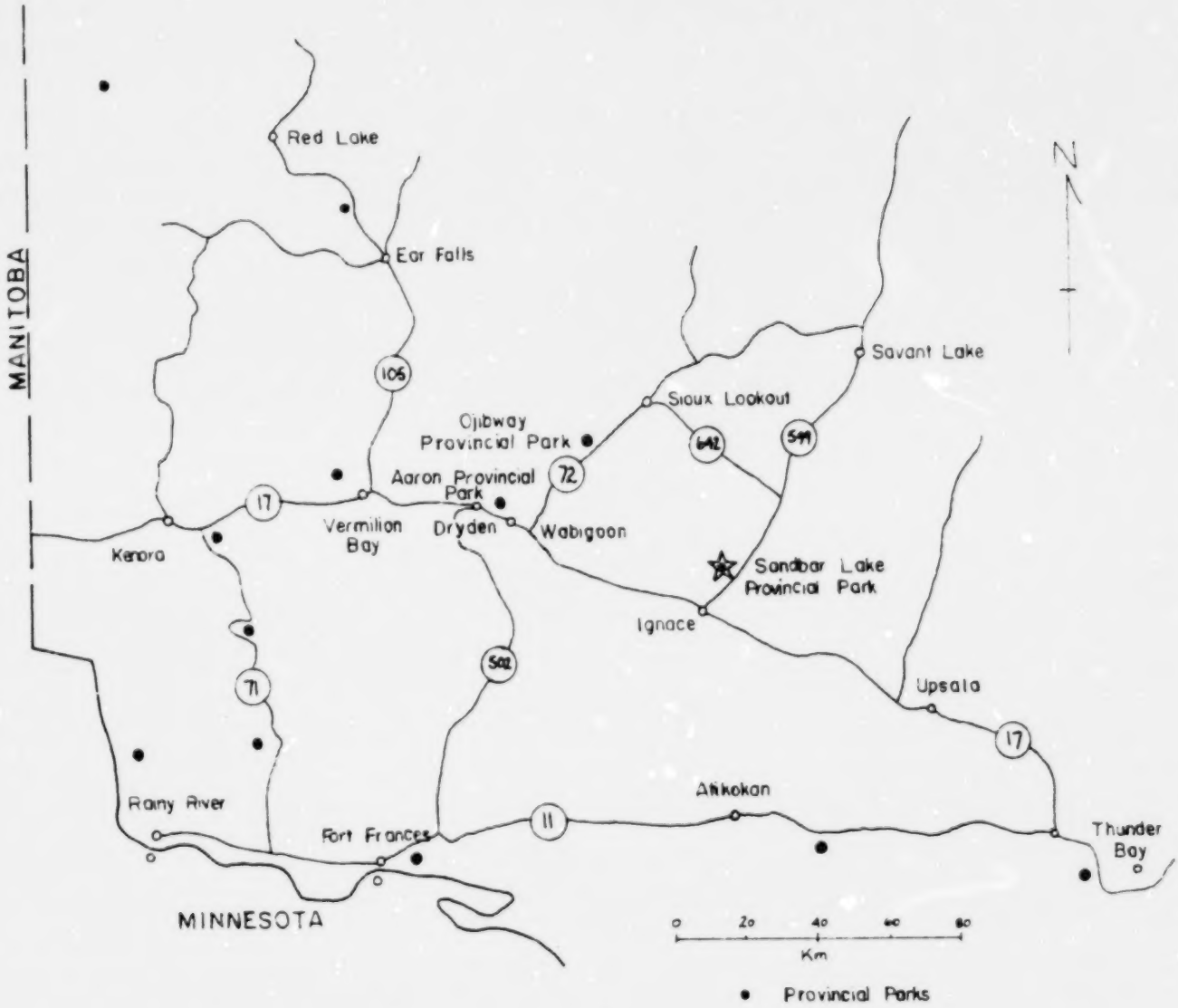
Sandbar Lake Provincial Park is administered by the Ignace District of the Ministry of Natural Resources. The park is situated along Highway #599, 11 kilometres north of the Highway #17 junction and approximately 12 kilometres northeast of the town of Ignace. The park may be accessed east and west (controlled entry) off Highway #599; to the west off Great Lakes Forest Products Road #325; as well as in the northeast and northwest portion of the original park via old logging roads (see Figures 1 and 2).

The town of Ignace has a population of approximately 2,000 people, however, over the next few years the population is expected to decline with the closure of the Mattabi mining operation in 1988. At present, Ignace is capable of providing all the amenities necessary for park visitors, including alternative recreational opportunities. Located within an hour and a half driving time of the park are the communities of DRYDEN (120 km west; population 6,500), WABIGOON (100 km west; population 500), SIOUX LOOKOUT (130 km north; population 3,000) and UPSALA (125 km east; population 350).

The area surrounding most of the park is Crown land licenced to Great Lakes Forest Products under a Forest Management Agreement. To the southwest the park boundary overlaps the boundary of the Township of Ignace, and to the south the park borders patent land adjacent to the Sandbar Lake shoreline occupied by a private tourist operation.

The park is located within the Canadian Shield and the terrain is generally rolling with some cliffs and exposed bedrock. The vegetation is characterized by a predominantly coniferous forest cover and forms part of the transition zone between the Great Lakes-St. Lawrence forest and the Boreal forest. The climate of the area is a modified continental climate and is characterized by long cold winters and warm summers.

Figure 1 SANDBAR LAKE PROVINCIAL PARK REGIONAL CONTEXT



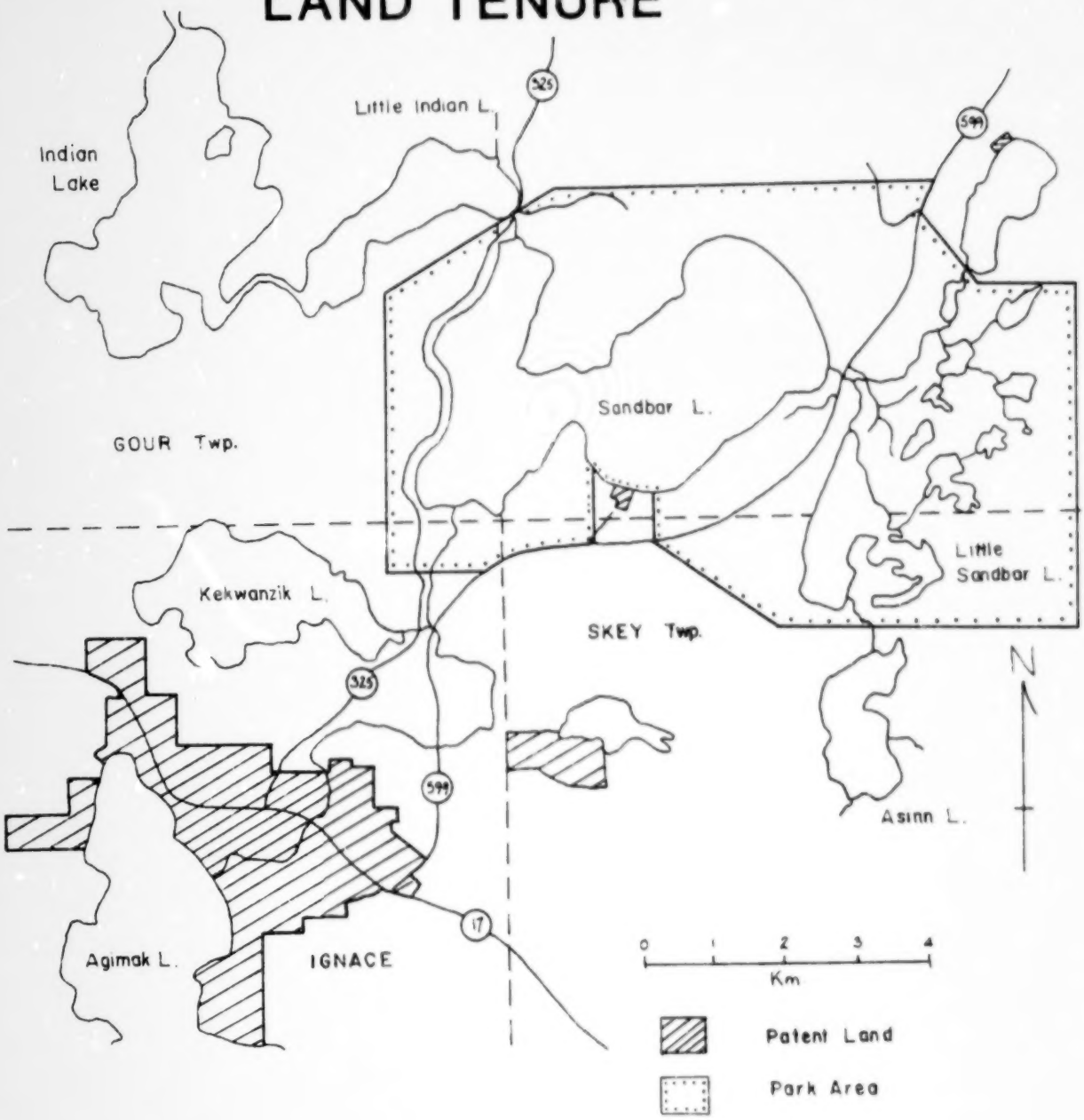
3.0 LAND TENURE

Sandbar Lake Provincial Park was originally established in 1970 and today occupies an area of 5,127 hectares. The land within the park is all Crown land and has been withdrawn from Great Lakes Forest Products timber licence. The park area includes a portion of the townships of GOUR, IGNACE and SKEY. The rest of the park is unsurveyed territory within the Territorial District of Kenora. Adjacent to the park, along the south shoreline of Sandbar Lake, is a private tourist operation located on two parcels of patent land which were purchased in 1955 and 1961. The lodge is accessed off Highway #599 and provides uncontrolled access onto Sandbar Lake. Uncontrolled access to Sandbar Lake is also possible off Great Lakes Forest Road #325 (See Figure 2).

Land use prior to the park establishment primarily involved timber harvesting. Logging in and around the park area occurred as early as 1905 and carried on until the 1960's under the auspices of the Indian Lake Lumber Company, Great Lakes Forest Products, Northern Wood Preservers, and various other individuals. The only other developed land use has been extraction from several gravel pits along Highway #599 adjacent to the park.

By 1964, when the Parks branch selected the park location, the only evidence of prior land use was the abandoned skid trails and haul roads. In 1965 land clearing and road construction in the park were initiated and by 1970 the park was officially established. In 1974 an expansion of the park was proposed.

Figure 2 SANDBAR LAKE PROVINCIAL PARK LAND TENURE



4.0 DEVELOPMENT

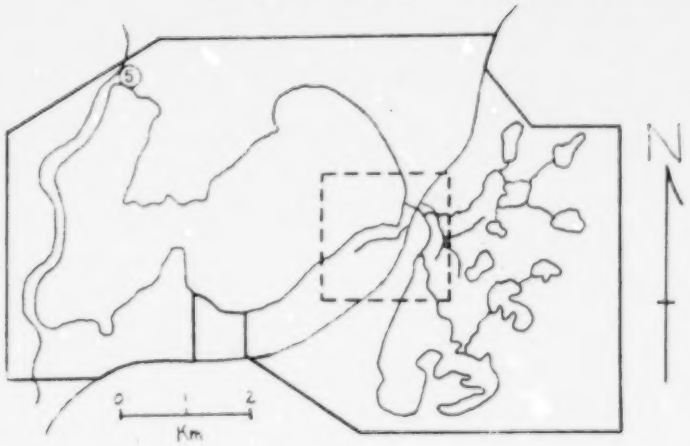
Development within the park includes a campground, day-use area, boat launch facilities, gate house and maintenance building. All the development has been concentrated between the southeastern shore of Sandbar Lake and Highway #599, and is accessed directly off the highway. The park has an internal gravel road network of 3.5 kilometres in length (See Figure 3).

The campground features 75 campsites, of which 17 are serviced electrically, and one group camping area which can accommodate 50 people per night. Campground facilities include a comfort station and showers, 16 vault toilets, a trailer dumping station, wood yard and numerous water taps. Tap water in the campground is pumped from the lake and chlorinated, and is sample tested weekly for health purposes. Park garbage is deposited in the Ignace town dump site, 6 km south of the park off Highway #599.

The day-use site features a picnic shelter and 35 picnic tables on a two hectare site by the lakeshore and can accommodate parking for 50 vehicles. Other day-use facilities include a boat launch, fish cleaning station, two change houses and a 1.6 km long sandy beach.

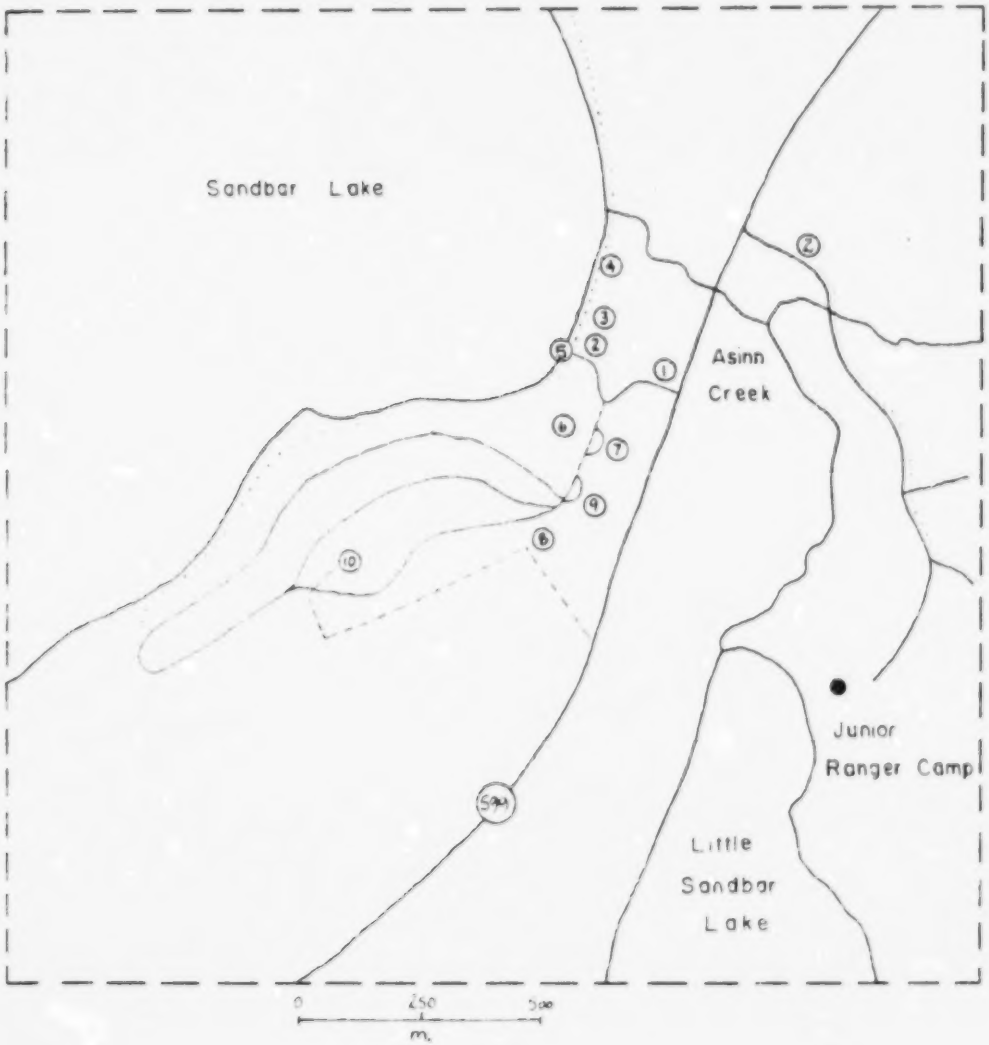
Two hiking trails along the Sandbar Lake shoreline provide 3.5 km of interpretative walkways for guided or self-guided tours. In the winter cross-country ski trails have been maintained throughout the eastern portion of the park by a local ski club and these trails have potential for future interpretative walkways. Also present in the eastern portion of the park is a Junior Ranger Camp, located on Little Sandbar Lake; which is occupied only during July and August.

Figure 3 SANDBAR LAKE PROVINCIAL PARK EXISTING DEVELOPMENT



① Gate House
② Day use Parking
③ Picnic Shelter
④ Change Houses
⑤ Boat Launch
⑥ Group Camping Area
⑦ Trailer Dumping Station
⑧ Maintenance Building
⑨ Woodyard
⑩ Comfort Station

..... Trails
----- Hydro Line



5.0 RESOURCES

5.1 Climate

The climate of Northern Ontario is classified as a modified continental climate, characterized by long cold winters and warm summers. The park is more specifically located within the Height of Land climatic region of Northern Ontario and features somewhat greater ranges in temperature and a shorter frost-free period than may be expected at this latitude. The mean daily temperature extremes are -25.2°C to -13.2°C in January and 11.8°C to 23.6°C in July. The average frost free period is 102 days, from approximately June 2 until September 13. Compared to other climatic regions of Northern Ontario, the Height of Land region also receives a greater quantity of precipitation, (yearly average is 822.7 mm, of which 529.3 mm is in the form of rainfall).

5.2 Earth Science Features

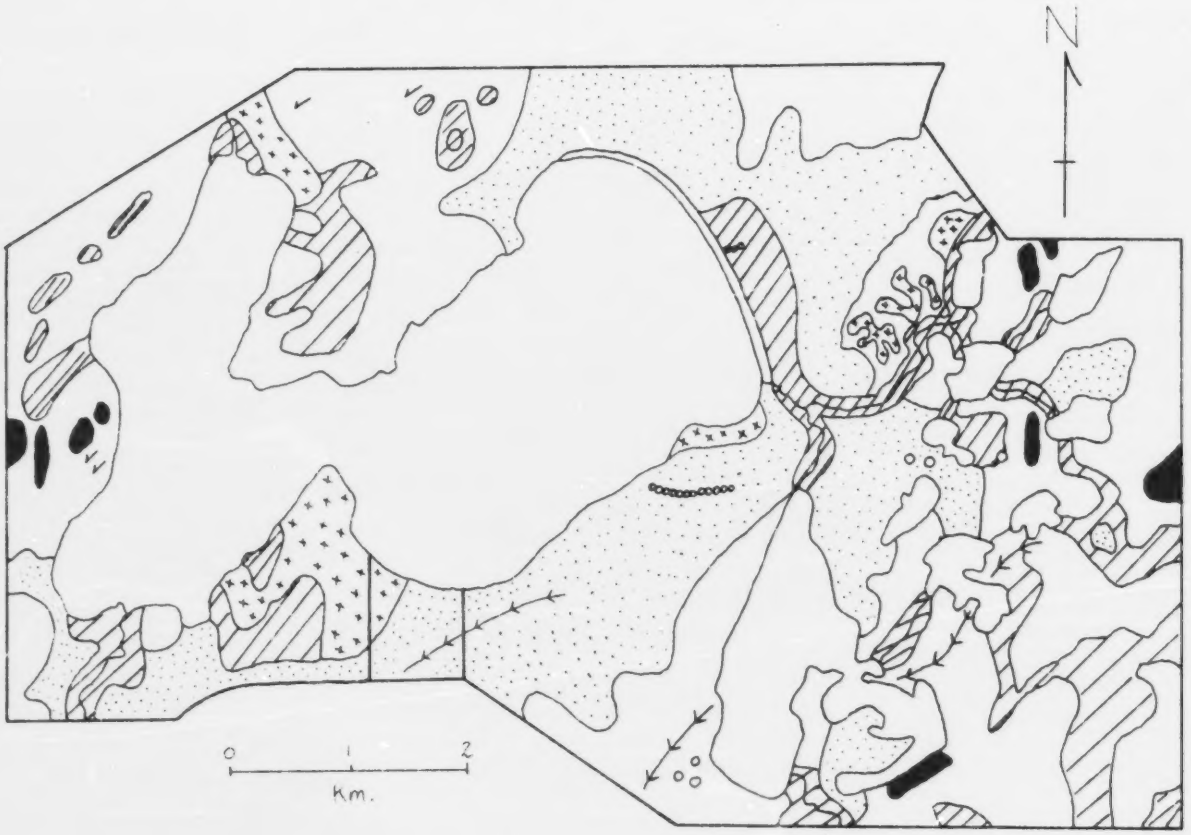
5.2.1 Geology

Sandbar Lake Provincial Park is located within the Canadian Shield and is characterized by an igneous bedrock formation of the early Pre-Cambrian era. The bedrock geology is predominantly a fine to medium grained, massive granite, uniform in texture, form and composition. The bedrock topography is undulating to abrupt, with many cliffs and ridges of considerable relief located in the northwest and southeastern portions of the park. Scattered rock outcrops of quartz monzonite containing some pegmatite dykes are found locally. No economic form of mineralization has been noted.

5.2.2 Geomorphology

Surficial landforms in and around the park are the result of the most recent glacial advance, during the late Wisconsin stage of the Quaternary Period (See Figure 4). The glacial advance often scraped the bedrock clean in places leaving markings called striae. Numerous striae are visible within the park and are oriented towards S 35° W, indicating a glacial advance from the northeast to the southwest. This direction of

Figure 4 SANDBAR LAKE PROVINCIAL PARK GEOMORPHOLOGY



LEGEND

- Glacial Outwash
- Glacial Till
- Glaciolacustrine / Clays
- Wetlands / Organics
- Esker
- Kettle Lake
- Boulders
- Striae
- Bedrock

glacial movement is confirmed by the orientation of a large esker southeast of Sandbar Lake, as well as two smaller eskers adjacent to Little Sandbar Lake. Eskers are normally associated with outwash deposits however, they are virtually absent from a huge area to the west of the park which would have been flooded by glacial Lake Agassiz.

Glacial deposition within the park is of two basic types; (1) outwash deposits and (2) shallow glacial till. The outwash deposits were formed by sediment-carrying meltwater from the retreating glacier which temporarily stood at the Hartman moraine to the north. In the eastern portion of the park this outwash surface is pitted by several kettle depressions containing bogs. These depressions have resulted from isolated blocks of ice occupying the site during deglaciation. The glacial till was deposited by glacial ablation and is significant as it is the typical till over bedrock complex common to Northwestern Ontario.

In total seven earth science-environmental themes are represented in the park including: Island Arcs and Basins (Pre-Cambrium era); Timiscaming Interstadial (Wisconsin Glacial stage); Tectonic Forms; Glacial Forms; Lacustrine Forms; Mass Wasted Forms and Fluvial Forms.

5.2.3 Soils

The topography of the park varies from rolling to extremely rugged. The major soil types occurring within the park are the Podzolic order on the better drained sites, the Gleysolic order on poorly drained sites and some Organics in lowland areas. The glacial till deposition is characterized by a brown, silty, sand till mixture, which forms a shallow veneer over bedrock. Associated with the till are numerous pockets of white to grey clay deposition. These clay deposits occur in depressional areas, the result of ponded water during post-glacial times. The outwash deposition is characterized by fine to medium sands, often interbedded with layers of silt and gravel. The sand is predominantly composed of quartz with feldspar and mafic minerals present. Organic deposition is characterized by accumulations of peat and undecomposed materials and occurs in lowland areas adjacent to lakes, rivers and swamps.

5.3 Life Science Features

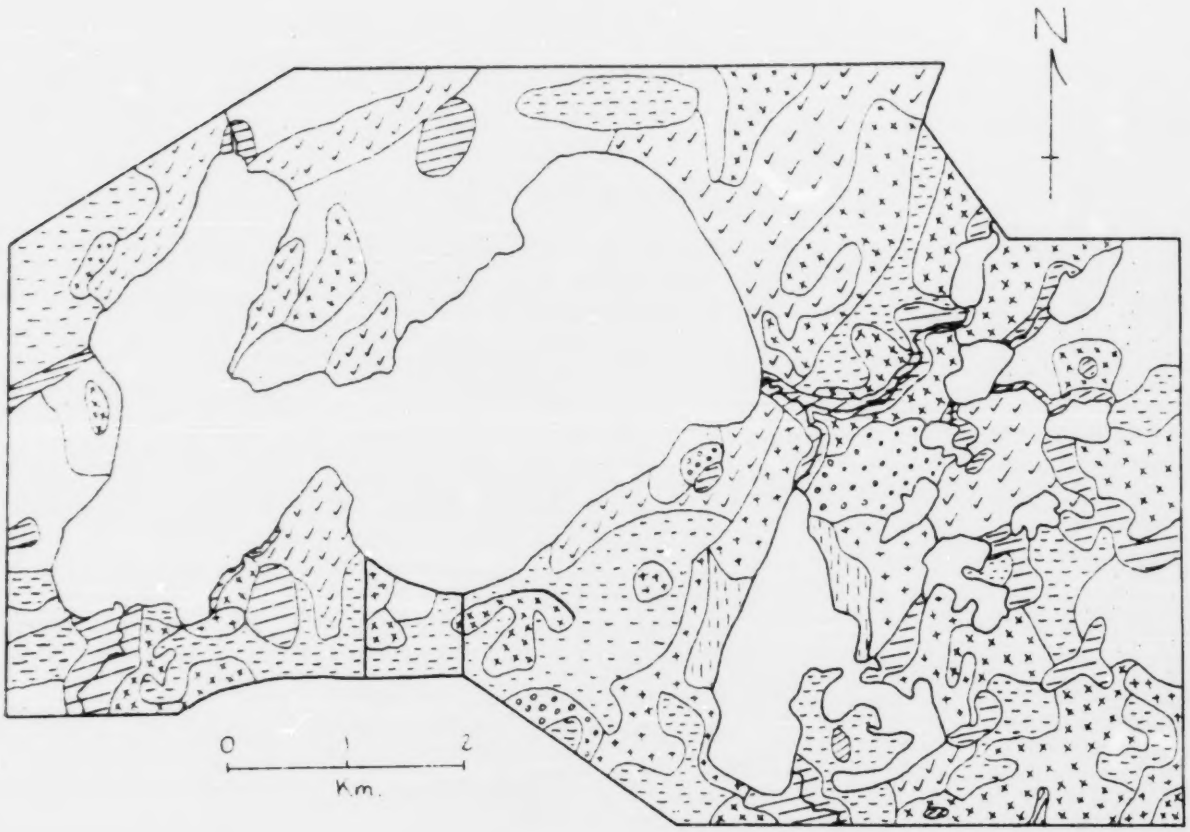
5.3.1 Vegetation

Sandbar Lake Provincial Park is located on the southern margin of the Boreal forest region, within the Upper English River section. This section marks the transition zone between the Great Lakes - St. Lawrence forest to the south and the Boreal forest to the north. Jack pine and black spruce are the dominant tree species in this section and in mixture with balsam fir, white spruce, poplar and white birch form the main component of the forest canopy. The forest cover within the park is predominantly coniferous with a very large balsam fir component. The forest stands throughout the park represent a variety of developmental stages, the results of logging and blowdown disturbances and a forest fire in the early 1900's. Wetland communities are common throughout the eastern portion of the park (See Figure 5).

The majority of the plant and tree species occurring within the park are common to the Boreal forest, with only a minor component of southern, northern and western species. Tree species of significance include red pine, white pine, red maple and balsam poplar which reach their northern limits in this area. Red pine is of particular note as it is dominant in a couple of stands. Plant species of significance include downy arrow-wood, wild ginger, sweet flag and wintergreen which also reach their northern limits in this area. Only a single western species, sweet coltsfoot; and two northern species, mountain cranberry and three-leaved cinquefoil; have been identified within the park. Other plants of note belong to the orchid family and include the significant occurrences of Arethusa orchid, Hooker's orchid and slender ladies' tresses. In all 173 floral species have been identified within the park to date.

A forest fire evacuation plan has been prepared for the park and if required the district fire control office is only 11 kilometres away. Park staff are trained in evacuation procedures and the park fire fighting equipment is regularly maintained.

Figure 5 SANDBAR LAKE PROVINCIAL PARK VEGETATION



LEGEND

- Jack Pine
- Red Pine
- Black Spruce
- Balsam Fir
- Poplar
- White Birch
- Conifer Mixed Wood
- Hardwood Mixed Wood
- Wetlands

Over the past few years a severe infestation of spruce budworm has attacked the spruce and fir trees of Northwestern Ontario. The park is particularly susceptible to budworm attack due to the large balsam fir component, therefore a vegetation protection initiative has been undertaken. For the past two years the park has been sprayed in the spring with an insecticide to combat the feeding of the budworm larvae. The spray is viewed as a short term protection measure to provide time for the removal of dead and dying trees for safety reasons.

5.3.2 Wildlife

The fauna identified within the park are for the most part common to the Boreal forest. Major mammal species represented include moose, black bear, timber wolf, red fox, beaver and hare. The presence of white-tailed deer within the park is of significance as the species reaches its northern limit in the area. The park is a designated No Hunting - No Trapping area however, a portion of an existing trapline is present within the park expansion area. This trapline has been licensed to the present trapper since the late 1940's and the major species quotas are for beaver and martin.

Fifty-two species of birds have been recorded within the park. Some of the birds identified include common loons, marsh hawks, ruffed grouse, gray jays, and pileated woodpeckers.

The amphibian and reptile fauna have not been well documented. At present only four species have been recorded; leopard frog, wood frog, common garter snake and western painted turtle.

5.4 Aquatic Resources

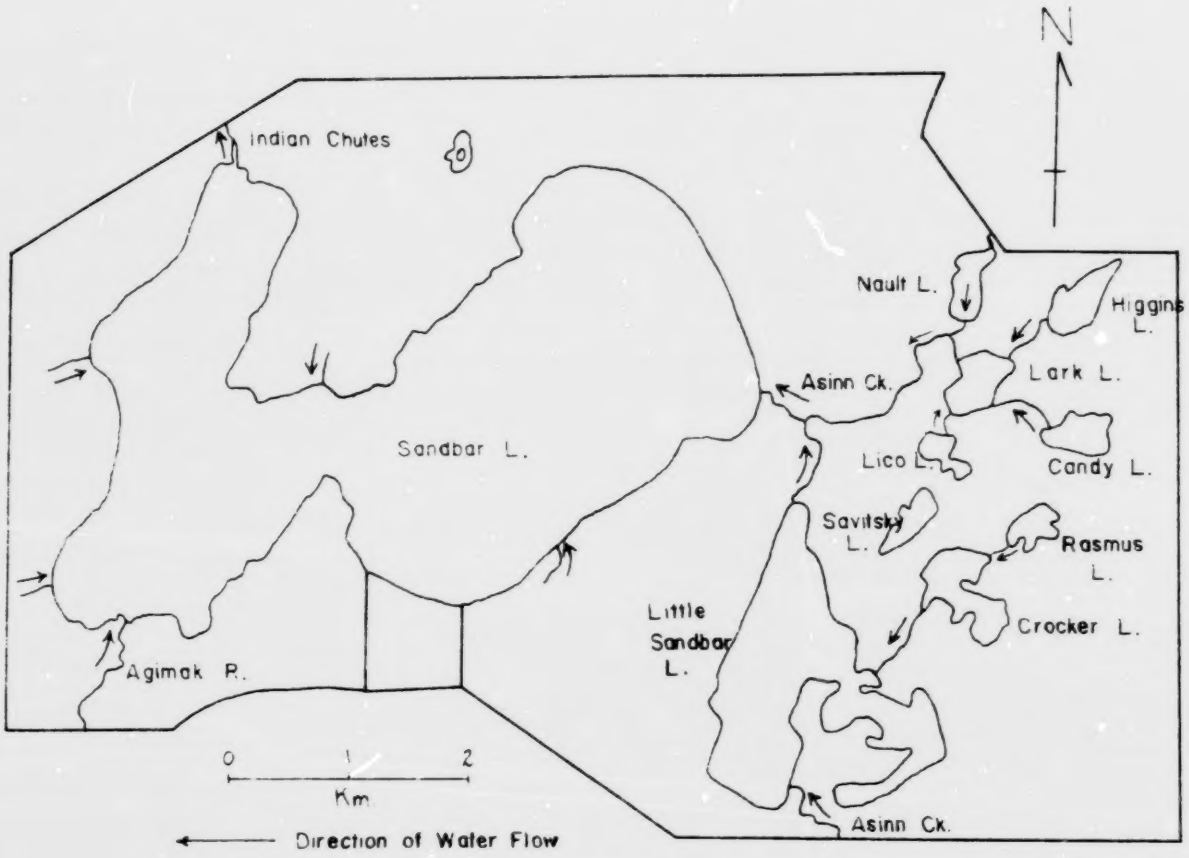
Sandbar Lake Provincial Park is located within the Upper English River watershed. The area is characterized by a complex, often deranged glacial drainiage pattern, as evidenced by a number of small swamps, bogs and fens found within the park.

Within the boundaries of the park there are 10 warm water lakes of varying size and characteristics (see Figure 6). The largest lake is Sandbar Lake, which is a shallow lake with an average depth of 4.9 m. and a maximum depth of only 14 m. Little Sandbar Lake and Crocker Lake are small, shallow lakes with maximum depths of only 7 m and 9 m respectively. Savitsky Lake is the only other lake within the park that has been surveyed and is a small lake with a mean depth of 7.5 m and a maximum depth of 20 m.

The major inlets to Sandbar Lake are Asinn Creek and Agimak River; which both meander through well defined floodplains. Asinn Creek drains a chain of 18 small lakes (including all park land east of Highway #599) into Sandbar Lake. Agimak River flows through Ignace draining Agimak Lake and McNamara Lake. Both of these lakes are controlled by dams to maintain a water level on Agimak Lake between 451.74 m and 451.84 m, but this seems to have little affect on the level of Sandbar Lake. There are four other minor inlets into Sandbar Lake which carry mainly spring run-off and have a negligible summer flow. The only outlet from Sandbar Lake is to the northwest into Little Indian Lake via a step-like channel called Indian Chutes.

There is a varied fishery in Sandbar and Little Sandbar Lakes including walleye, northern pike, yellow perch, white sucker and cisco. The remaining surveyed lakes contain walleye and pike and there is a suggested presence of minnows in some of the unsurveyed waters. At present an Ignace District Fisheries Management Plan is being developed within the district. There are no commercial food fishing operations within the park, however the park is located within part of a licensed baitfish block.

Figure 6 SANDBAR LAKE PROVINCIAL PARK AQUATIC RESOURCES



5.5 Cultural Resources

Archeological evidence within the park indicates occupation by native people for at least 2,500 years. There is evidence of prehistoric occupation during the Laurel Period (200 BC-400 AD) and the Blackduck Period (800 AD - contact). There are four known prehistoric sites in the park, from which a number of artifacts have been collected and documented. These sites are not spectacular from an interpretive stand point, however they do represent important historical themes relevant to Northwestern Ontario.

During the historic period (1600 AD - present) it appears the Ojibway people were attracted to the Sandbar Lake area around 1700 by an abundance of food and game, thereby displacing the previous Cree occupants. The local natives used Sandbar Lake as part of a northeast canoe route, but the route did not attract many outsiders, who preferred to use the more travelled English River and Wabigoon River systems. Around 1823 the American Fur Trading Company established a trading post in the area, on nearby Indian Lake. However the local area did not play a direct role in the fur trade, rather it served as part of the vast hinterland upon which the fur trade was dependent.

The 1870's marked the arrival of railroad construction in the Ignace area, as the CPR built westward. The combination of the railroad construction and the granting of mining patents for the first time served to develop a local demand for timber products. As a result logging commenced around the Ignace area. By the early 1900's the Indian Lake Lumber Company was logging in the Sandbar Lake area and floating the cut timber west to a mill on Camp Lake. Logging operations continued in the Sandbar Lake area up until the early 1960's.

Four cultural themes of historical significance are represented within the park: Indigenous Settlers and Potters (Laurel People); Northern Hunters and Fishers (Blackduck People); Post Contact Tribes and Bands; and the Forest Industry and it's communities.

6.0 MARKET ANALYSIS

In 1985 Sandbar Lake Provincial Park received 12,613 visitors, and that number was almost evenly split between campers and day-users.

Amongst the campers surveyed in 1984, only 6% were residents of Northwestern Ontario and weekend trips acounted for only 9% of the camping use. This low local demand for recreational camping may reflect an abundance of recreational opportunities available in the local area. Based on 1985 statistics the average camping party size was 3.2 people and the average length of stay was 1.6 days. The majority of campers surveyed in 1984 indicated they had never visited the park before (74%) and did not consider the park as their main destination (79%). These figues indicate that the park serves primarily as a camping stopover for tourists enroute to other locations. Campsite occupancy in the park during July and August of 1985 was 50%.

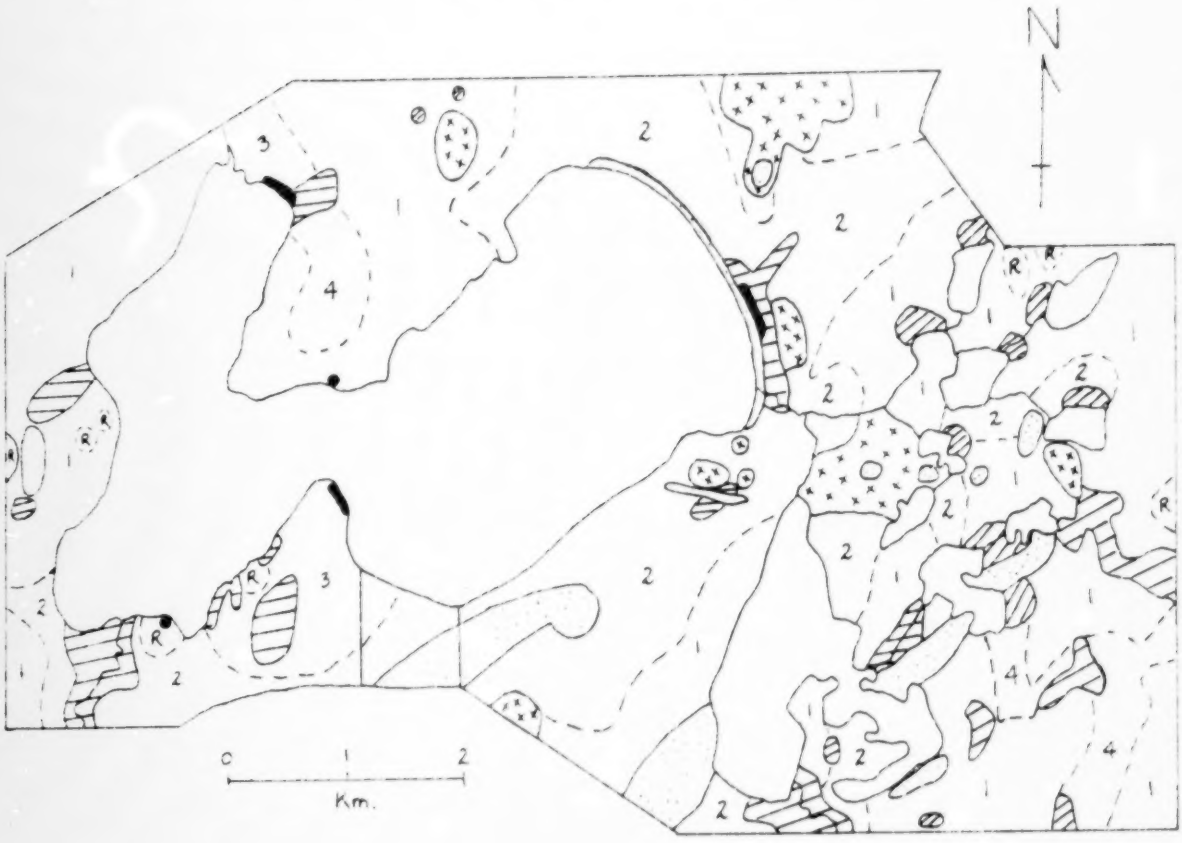
Amongst the park day-users surveyed in 1984 almost half (44%) resided in the Northwest part of the province and more than half (58%) had visited the park previously. A majority of those day-users (59%) indicated the reason for choosing Sandbar Lake Provincial Park was due to convenience and close proximity.

The most popular park past-times varied with the type of park user. Campers indicated a preference for time spent relaxing and walking about, while day-users preferred to spend their time swimming, sun bathing and picnicing.

7.0 PHYSICAL CONSTRAINTS

Sandbar Lake Provincial Park has been divided into several zones or areas as a constraint guideline for future park development (See Figure 7). Areas requiring protection include significant features in the Earth Science, Life Science and Cultural Resources categories. It is suggested that these features receive minimal impact as the result of future park development. Other constraints to development include topography, soil depth, drainage, compaction resistance and erosion potential. These parameters are to be considered during the planning process on a case by case basis, as complete and specific information is lacking at this time.

Figure 7 SANDBAR LAKE PROVINCIAL PARK PHYSICAL CONSTRAINTS



LEGEND

Constraints

- Life Science Features
- Earth Science Features
- Cultural Resources
- Wetlands

Ground Conditions

- 1 Till over bedrock
- 2 Sand deposition
- 3 Clay
- 4 Lowlands
- R Rock

8.0 CONTENTIOUS ISSUES

This section identifies issues of concern that will be addressed during the planning process and resolved in the park management plan. More issues may surface following public input.

Contentious issues identified at this time include:

1. General park development with respect to park zoning.

2. Development of significant historic/biological/geological areas with respect to park classification change.

3. Presence of an existing trapline in the park expansion area.

4. Uncontrolled access onto Sambar Lake via patent land and the 325 road.

5. Drafting of a vegetation plan.

6. Presence of an MTC gravel permit in the park expansion area.

APPENDIX
LATIN EQUIVALENTS SPECIES LISTED

Common Name	Scientific Name
FLORA	
jack pine	Pinus banksiana
white pine	Pinus strobus
red pine	Pinus resinosa
black spruce	Picea mariana
white spruce	Picea glauca
balsam fir	Abies balsamea
white birch	Betula papyrifera
poplar	Populus tremuloides
balsam poplar	Populus balsamifera
red maple	Acer rubrum
downy arrowwood	Viburnum rafinesquianum
wild ginger	Asarum canadense
sweet flag	Acorus calamus
wintergreen	Gaultheria procumbens
sweet coltsfoot	Petasites frigidus var. palmatus
mountain cranberry	Vaccinium vitis-idaea
three-leaved cinquefoil	Potentilla tridentata
Arethusa orchid	Arethusa bulbosa
Hooker's orchid	Habenaria hookeri
slender ladies' tressed	Spiranthes gracillis
FAUNA	
moose	Alces alces
white-tailed deer	Odocoileus virginanus
black bear	Ursus americanus
timber wolf	Canis lupus
red fox	Vulpes fulva
beaver	Castor canadensis
marten	Martes americana
hare	Lepus americanus
common loon	Gavia immer
marsh hawk	Circus cyaneus
ruffed grouse	Bonasa umbellus
gray jay	Perisoreus canadensis
pileated woodpecker	Dryocopus pileatus
leopard frog	Rana pipiens
wood frog	Rana sylvatica
garter snake	Thamnophis sirtalis
western painted turtle	Chrysemys picta belli
northern pike	Esox lucius
walleye	Stizostedion vitreum vitreum
yellow perch	Perca flavescens
white sucker	Catostomus commersoni
cisco (lake herring)	Coregonus artedii
minnow	Cyprinidae
spruce budworm	Choristoneura fumiferana

REFERENCES

Beaudry, Marie-Ange and Joni Lavender-Sexsmith. 1983. An Historical Research Report and Resource Inventory of Seven Provincial Parks in Northwestern Ontario. MNR.

Kor, Philip. 1974. Geomorphology and Geology of Sandbar Lake Provincial Park. MNR.

Lambert, Peter. 1983. The 1983 Archeological Survey of Seven Ontario Provincial Parks in the Kenora Region and Assessment of Archeological Resources in Adjacent Geographic Areas. MNR.

Ministry of Natural Resources. 1983. Ignace District Land Use Guidelines. MNR.

Ministry of Natural Resources. 1984. Provincial Park Camper Survey Statistical Summary. MNR.

Ministry of Natural Resources. 1985. Ontario Provincial Parks Statistics. MNR.

Ralph, Bruce. 1979. Background Information, Sandbar Lake Provincial Park. MNR.

Reid, Paddy. 1974. Archeological Inventory of Sandbar Lake Provincial Park. MNR.

Thacker, Bruce. 1974. Ecological Inventory of Sandbar Lake Provincial Park. MNR.

Thacker, Bruce. 1986. Sandbar Lake Provincial Park Addition Area Life Science Interpretive Features. MNR.

Zilans, Andis. 1986. Geology and Geomorphology of the Sandbar Lake Provincial Park Addition. MNR.